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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/537,738	03/29/00	RANGANATHAN	N II-1

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EXAMINER

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ART UNIT

PAPER NUMBER

2861

DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/537,738

Applicant(s)

RANGANATHAN ET AL.

Examiner

David Yockey

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Continued Prosecution Application

The request filed on 21 May 2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 09/537,738 is acceptable and a CPA has been established. An action on the CPA follows.

Specification

The spacing of the lines of the newly provided abstract is such as to make reading and entry of amendments difficult. A new abstract with lines **double spaced** on good quality paper are required. See MPEP 608 and 608.01.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20:

"A replaceable ink jet assemblage as defined in claim 17" is unclear, as claim 17 recites "Replaceable ink jet apparatus" rather than "assemblage."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niedermeyer et al. (US 5,343,226) in view of Ramacier, Jr. et al. (US 5,316,041), Preszler (US 5,293,913), Pawlowski, Jr. (US 5,847,734) and Frerichs (US 4,496,959).

Niedermeyer et al. teaches the claimed invention except the means for supplying ink to the reservoir independently of actuation by the reservoir.

Ramacier, Jr. et al. discloses a duplex connector consisting of a quick connect coupling valve assembly which facilitates fluid connection and disconnection without leakage. Note in particular Fig. 2 and, with respect to the fixed post limitation of claim 9, Figs. 23-24C.

Preszler teaches a means by which elements of a duplex coupler may be connected to an ink bottle and ink reservoir, i.e. by threaded connections.

Pawlowski, Jr. and Frerichs teach that quick connect couplings and leakage-free couplings are pertinent and desirable in the ink jet printing art to prevent air from entering a printing system (see in particular Pawlowski, Jr. column 7, lines 5-11 and Frerichs column 1, lines 48-53 and column 2, line 62 through column 3, line 23).

Art Unit: 2861

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the Ramacier, Jr. et al. duplex connector for the valve structure in the Niedermeyer et al. apparatus, while providing threaded connections as taught by Preszler, for the purpose of providing a valve assembly which facilitates quick fluid connection and disconnection without leakage.

Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niedermeyer et al. (US 5,343,226) in view of Ramacier, Jr. et al. (US 5,316,041), Preszler (US 5,293,913), Pawlowski, Jr. (US 5,847,734) and Frerichs (US 4,496,959), and Ito (US 6,053,603).

The combination of Niedermeyer et al. in view of Ramacier, Jr. et al., Preszler, Pawlowski, Jr. and Frerichs as discussed above with regard to claims 1-12 and 17-20, applies also to claims 13-16. This combination suggests the claimed invention except the insertion of the other component *into* a bottle; the combination suggests that the other component be attached *onto* a bottle.

Ito discloses providing a pipe 40a which extends into a bottle as part of a connector which connects the bottle to an ink reservoir (see in particular Fig. 4(d)). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a pipe as taught by Ito extending from the other component because such provision would allow an easy connection of the other component to the bottle (column 3, lines 45-47), particularly where the bottle has a pierceable obstruction, such well known obstructions including a foil or a rubber stopper.

Response to Arguments

Applicant's arguments filed 21 May 2001 have been fully considered but they are not fully persuasive.

The replacement Abstract is not double spaced as required. Accordingly, the objection concerning the Abstract is reiterated above.

At page 4, line 13 through page 5, line 4 of Applicant's response, Applicant refers to matters which have either been overcome by the instant amendment or are moot as having been withdrawn in the prior Office Action mailed 26 February 2001.

At page 5, line 5 through page 6, line 19 of Applicant's response, Applicant argues that the combination of Ramacier with Niedermeyer is based upon hindsight because there is no evidence of criticality of quick connection or avoidance of leakage in Niedermeyer. This argument is not persuasive in that it is self-evident to anyone of ordinary skill in the art that saving time in maintenance such as making connections for refilling of ink and preventing leakage to avoid letting air into an ink jet system as well as to prevent spilling ink on one's clothing, hands and surrounding equipment are beneficial in the ink jet printing art. However, in order to clarify this position, Pawlowski, Jr. and Frerichs are cited in the rejection to provide explicit teaching that quick connections and prevention of leakage are of importance in the ink jet printing art. As Niedermeyer is directed to an ink jet printer, it is clear that such matters are also relevant thereto.

Additionally in the abovementioned portion of Applicant's response, Applicant emphasizes that the Niedermeyer bottle is fluid dispenser for dispensing ink and not a

Art Unit: 2861

"critical medical fluid." As acknowledged by Applicants at page 6, lines 1-4, a reference is considered not only for what it expressly states, but for what it would reasonably have suggested to one of ordinary skill in the art. Ramacier is clearly and explicitly **not** limited to medical applications, as column 1, lines 15-27 thereof state:

"Various types of connection coupling valve assembly are known and disclosed in the art, such as connecting flexible tubes utilized in the bio-medical applications, instrument connection, **fluid dispensing assembly, etc.**

One concern with many current connection coupling valve assemblies is that it is difficult to quickly lock and release the connection coupling valve without any leakage of fluid in the fluid passageway.

In the medical industry or **fluid dispensing industry**, it is very desirable and critical to keep fluid containers sealed until the time of use. In many cases, it is desirable to have precise volumes of fluid dispensed without any leakage. "

(emphasis added).

Accordingly, Ramacier clearly suggests to one of ordinary skill in the art applicability of the disclosed coupling structure to fluid dispensers in general and **not** merely to medical applications. Further, Applicant admits at page 6, lines 17-18 that the Neidermeyer bottle is a fluid dispenser. In view of this evidence, as well as the added evidence provided by Pawlowski, Jr. and Frerichs as to the relevance of the benefits provided by

Art Unit: 2861

the Ramacier to ink jet printers, it is respectfully submitted that the combination of the references is not based upon impermissible hindsight, but rather upon the teachings of the cited references.

At page 6, line 20 through page 7, line 5, Applicant argues that there is nothing in Preszler to suggest adapting Ramacier to the Niedermeyer system because there is alleged to be no need for threaded connections in Niedermeyer and, consequently, that the combination of Preszler with the other references is based upon hindsight. This argument is not persuasive. The combination of the teachings of Niedermeyer and Ramacier suggest provision of a duplex coupler as taught by Ramacier in combination with the Niedermeyer apparatus as discussed in the rejection above. In such combination, one of ordinary skill would be motivated to locate a known means by which to connecting portions of a duplex coupler to a bottle and reservoir. Preszler provides such a means in the form of threaded connections. Thus, the combination of Preszler is clearly motivated and suggested by the teachings of the references and is not based upon impermissible hindsight.

At page 7, lines 6-8, Applicant alleges that the combination of references would not have been obvious because the teachings of the references are completely contrary. The Examiner respectfully disagrees for the reasons provided above and further because nothing in particular has been pointed out as supporting the sweeping statement that the references are "completely contrary."

At page 7, lines 9-19, Applicant asserts that there is nothing in the references to suggest the combination of Preszler with the other references. The Examiner

Art Unit: 2861

respectfully disagrees. As discussed above, Preszler provides suggestion to one of ordinary skill of a means to connect a duplex coupler to a bottle and a reservoir, the need for such connection suggested by the combination of references being discussed at length in the preceding remarks. This suggestion by Preszler applies not only to the specific duplex coupler disclosed by Preszler, but to **any** duplex coupler connecting a bottle and reservoir.

Applicant asserts that the combination is based upon hindsight because it is based upon what the combination of references suggests to one of ordinary skill in the art and that the references instead have to be considered individually. This argument is not persuasive. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

At page 8, lines 5-13, Applicant argues that the combination of Preszler with Niedermeyer is based upon hindsight because there is nothing in Niedermeyer to suggest means by which elements of a duplex coupler may be connected to an ink bottle and ink reservoir, i.e., by threaded connections. Thus, Applicant argues that the threaded connection in Preszler cannot be combined with Niedermeyer because Niedermeyer does not include a threaded connection. This argument is not persuasive. The Preszler threaded connection is not combined with Niedermeyer alone, but rather with the combination of Niedermeyer and Ramacier, where the Preszler threaded connection is provided as a means for connecting the Ramacier duplex coupler to the

Art Unit: 2861

Niedermeyer bottle and reservoir. As noted above, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

Applicant asserts that suggestions for the combination of references are absent in from the present case. The Examiner respectfully disagrees, as the various suggestions have been presented at length above.

Applicant asserts that the steps of the method claims cannot be deemed to be clearly obvious in view of the disparity in the functions of the structure in the "improper combination." This argument is moot in view of withdrawal of the statement to which this argument is directed from the rejection. The noted statement was inaccurate, as the method claims are rejected on different grounds from the apparatus claims. Any confusion in this regard is regretted.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Yockey whose telephone number is (703) 308-3084. The examiner can normally be reached on all weekdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on (703) 308-0750. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3432 for After Final communications.

Art Unit: 2861

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

DY
July 29, 2001



DAVID F. YOCKEY
PRIMARY EXAMINER